

SPECIES OF THE GENUS *COMPSOBATA* CZERNY FROM CHINA (DIPTERA, MICROPEZIDAE)

LI Xuan-Kun, LIU Xing-Yue, YANG Ding*

Department of Entomology, China Agricultural University, Beijing 100193, China

Abstract The genus *Compsobata* Czerny is newly recorded from China with two species. One species, *C. (Trilophyobata) huashanica* sp. nov., is described as new to science. One species, *C. (s. str.) cibaria* (Linnaeus), is newly recorded from China and is redescribed. A key to the species of *Compsobata* from China is presented.

Key words Diptera, Micropezidae, *Compsobata*, new species, China.

1 Introduction

The genus *Compsobata* Czerny (Diptera, Micropezidae) belongs to the subfamily Calobatinae. It is characterized by the following features: palpus extremely small, little longer than broad; 1 dorsocentral bristle present behind scutal sulcus; veins Sc and R₁ narrowly removed from each other, distance between their tips nearly as long as crossvein r-m; vein A₁ + CuA₂ not reaching wing margin; genital fork short and tumid, arms becoming thin and twisty. This genus is divided into two subgenera *Compsobata* Czerny and *Trilophyobata* Hennig by sternite 6 of male whether with a process projecting between bases of genital fork of sternite 5 (Steyskal, 1987). There are 27 known species in the world, including 12 species from the Palaearctic Region (Soós, 1984; Ozerov, 1987; 1990) and 15 species from the Nearctic Region (Merritt, 1973; 1976). Ozerov (1987) described 3 new species and gave a key to 11 known species of *Compsobata* from the Palaearctic Region.

Here the genus is recorded from China for the first time with 2 species including 1 new species.

2 Material and Methods

The specimens were studied and illustrated with ZEISS Stemi 2000-c. Genitalic preparations were made by heating the apical portion of the abdomen in lactic acid at 180 °C for 15–25 min. After examination it was transferred to fresh glycerine and stored in a microvial pinned below the specimen. The type specimens are deposited in the Entomological Museum of China Agricultural University (CAU), Beijing.

3 Taxonomy

Key to species of *Compsobata* from China.

1. Body length 6 mm; head brownish black, 1 weak frontal bristle present; thorax brownish black to black, pteropleuron yellowish brown; mid and hind tibiae yellowish brown with an indistinct brown

mark on basal part; sternite 6 of male without any process projecting between bases of genital fork of sternite 5

..... *C. (C.) cibaria* (Linnaeus)

Body length 10 mm; head brown, 2 weak frontal bristles present; thorax and pteropleuron brown; mid and hind tibia yellowish brown with a broad but indistinct brown ring on basal part; sternite 6 of male with a small process projecting between bases of genital fork of sternite 5 *C. (Trilophyobata) huashanica* sp. nov.

Compsobata (Compsobata) cibaria (Linnaeus, 1761) (Figs 1–6, 13–14)

Musca cibaria Linnaeus, 1761: 457. Type locality: not given (? Sweden).

Musca cothurnata Panzer, 1798: 20. Type locality: Austria.

Calobata solidaginis Robineau-Desvoidy, 1830: 739. Type localities: Radiées et la Verge d'or (France).

Calobata soror Robineau-Desvoidy, 1830: 739. Type locality: Saint-Sauveur (France).

Calobata trivialis Loew, 1854: 23. Type locality: "Sibirien".

Diagnosis. Head brownish black; 1 weak frontal bristle present. Thorax brownish black to black, pteropleuron yellowish brown; mid and hind tibiae yellowish brown with an indistinct brown mark at base. Sternite 6 of male without any process projecting between bases of genital fork of sternite 5.

Description. Male. Body length 6 mm, wing length 5 mm.

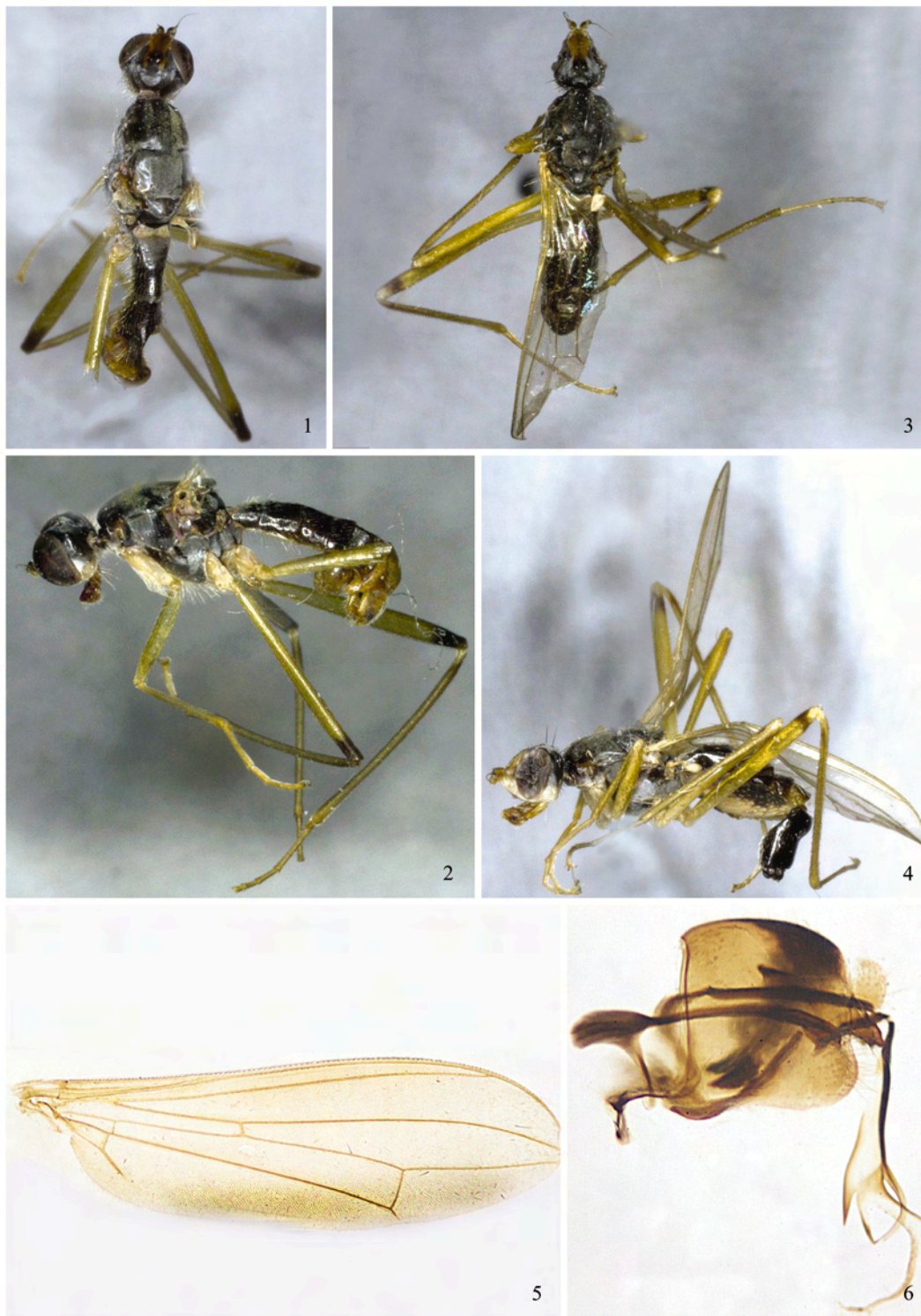
Head brownish black with pale yellow bottom and with pale gray pollen; frons yellowish brown. Hairs on head mostly white, but hairs in occipital area black; bristles black. 1 inner vertical bristle, 1 outer vertical bristle, 1 weak orbital bristle, 1 weak frontal bristle. Antenna yellowish brown; first flagellomere 1.5 times as long as wide; arista brown, nearly 2 times as long as first flagellomere, with small brown hairs. Proboscis yellowish brown with yellow hairs; palpus yellowish brown with yellow hairs.

Thorax brownish black to black with pteropleuron yellowish brown, and with dense pale gray pollen. Hairs on thorax pale yellow, bristles black. 2 notopleural bristles, 1 dorsocentral bristle, 1 supra-alar

* Corresponding author, E-mail: dyangcau@126.com, dyangcau@yahoo.com.cn

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Figs 1 – 6. *Compsobata cibaria* (Linnaeus, 1761). 1 – 4. Habitus. 5. Wing. 6. Terminalia. 1 – 2, 6. Male. 3 – 4. Female. 1, 3. Dorsal view. 2, 4, 6. Lateral view.

bristle, 1 postalar bristle, 1 apical scutellar bristle. Hypopleuron with some strong hairs. Legs mainly yellowish brown, except mid femur with a small brown ventral mark at apex, hind femur with a narrow brown ring at apex, mid and hind tibiae with an indistinct brown mark at base. Wing (Fig. 5) light brown, without any bands or marks; veins brown. Halteres yellowish brown with base brown.

Abdomen brownish black and shining, and with thin pale gray pollen; posterolateral corners of tergites 1 – 6 yellowish brown, genital fork of sternite 5 and tergites 7 – 8 yellowish brown. Hairs on abdomen pale yellow. Tergites with sparse long hairs. Sternite 5 with a protuberance in venter. Genital fork short and tumid, arms becoming thin and twisty; basal part of fork inset into sternite 4; arms converging with short

pale yellow hairs. Sternite 6 of male without any process projecting between bases of genital fork of sternite 5. Distal abdominal tergites yellowish brown except epandrium with brown marks. Male genitalia (Figs 6, 13): epandrium nearly quadrate in latetral view; surstylus rather narrow, with tip somewhat acute.

Female. Body length 6 mm, wing length 5 mm. Very similar to male. Ovipositor brownish black and shining, with short pale yellow hairs.

Specimens examined. 1 male, Heilongjiang, Mangui, 25 July 2009, YAO Gang; 1 male, Liaoning, Xinbin, 7 July 2005; 1 female, Liaoning, Xinbin, 16 June 2005.

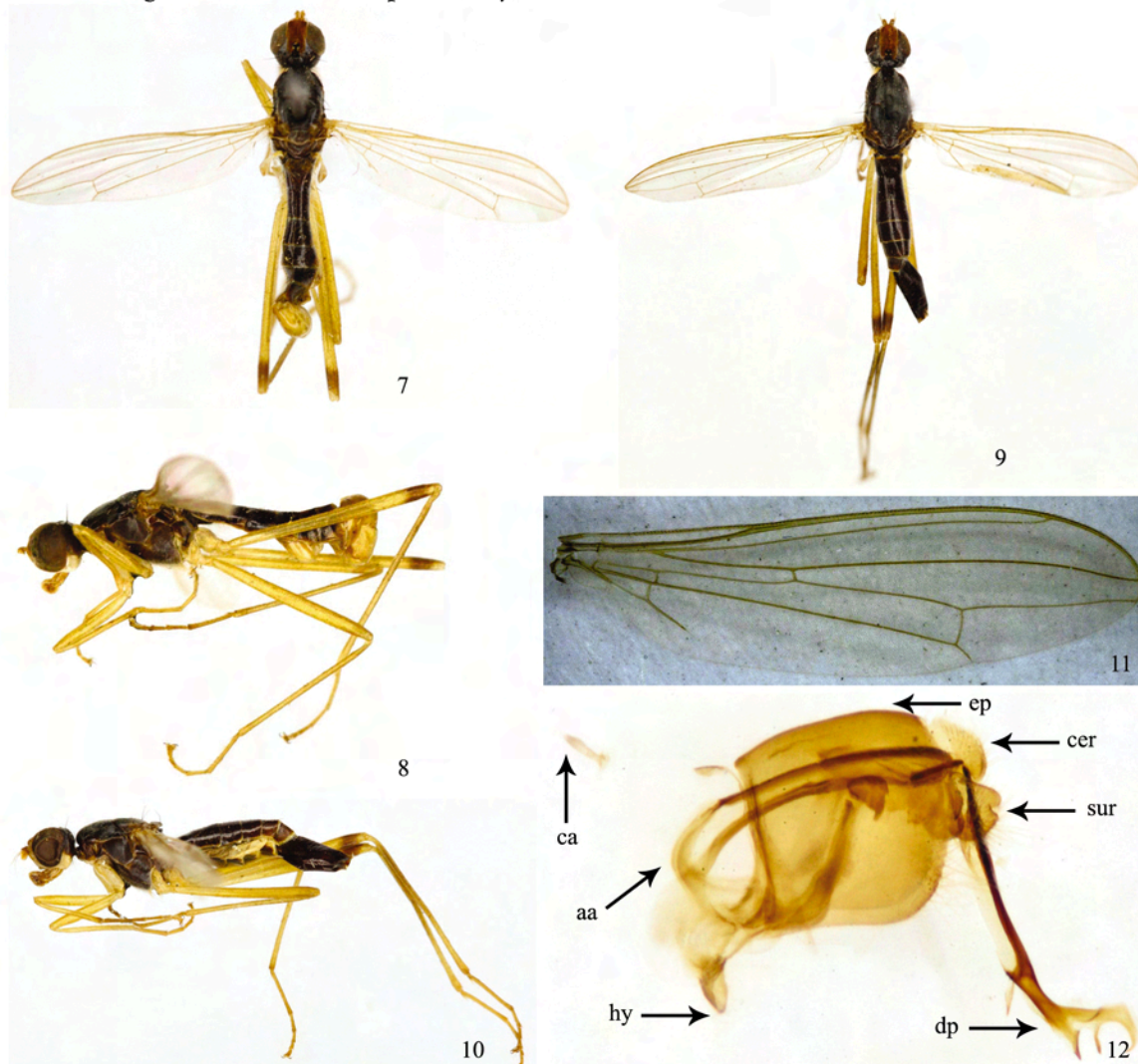
Distribution. Palaearctic Region: Europe, Asia. China (Heilongjiang, Liaoning).

Remarks. This species is recorded from China for the first time. Andersson (1989) gave a detailed illustration of male genitalia. This new species may be

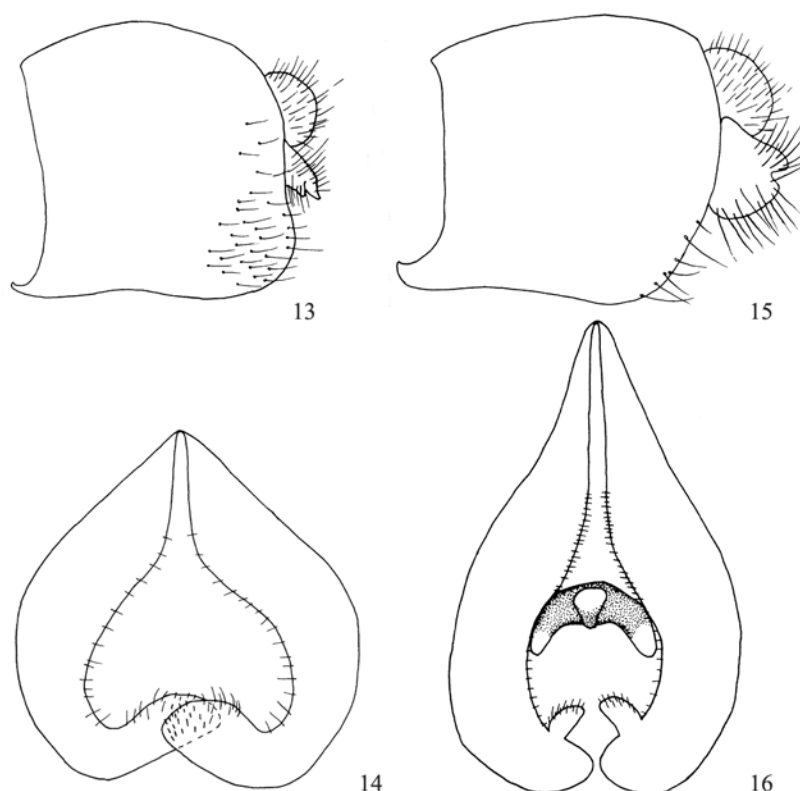
separated from *C. (C.) femoralis* (Meigen) from Central Europe by the following features: first abdominal tergite with a small lateral polished area, male genital fork not bulbous with arms becoming thin and twisty, female ovipositor dorsolaterally constricted; in *femoralis*, first abdominal tergite completely microtomentose, male genital fork bulbously hemispherical, female ovipositor without dorsolateral constriction.

***Compsobata (Trilophyobata) huashanica* sp. nov.**
(Figs 7–12, 15–16)

Diagnosis. Head brown, 2 weak frontal bristles present. Thorax brown with pteropleuron brown. Mid and hind tibiae yellowish brown with a broad but indistinct brown ring at base. Sternite 6 of male with a small process projecting between bases of genital fork of sternite 5.



Figs 7–12. *Compsobata huashanica* sp. nov. 7–10. Habitus. 11. Wing. 12. Terminalia. 7–8, 12. Male. 9–10. Female. 7, 9. Dorsal view. 8, 10, 12. Lateral view. Abbreviations: aa = aedeagal apodeme, cer = circus, dp = distiphallus, ea = ejaculatory apodeme, ep = epandrium, hy = hypandrium, sur = surstylus.



Figs 13 – 14. *Compsobata cibaria* (Linnaeus, 1761). 15 – 16. *Compsobata huashanica* sp. nov. 13, 15. Epandrium and cercus, lateral view. 14, 16. Genital fork, ventral view.

Description. Male. Body length 9.5 mm, wing length 7.5 mm.

Head brown with pale yellow bottom and with pale gray pollen; frons yellowish brown. Hairs on head mostly white, but hairs in occipital area black; bristles black. 1 inner vertical bristle, 1 outer vertical bristle, 1 weak orbital bristle, 2 weak frontal bristles. Antenna yellowish brown; first flagellomere 1.5 times as long as wide; arista yellowish brown, nearly twice as long as first flagellomere, with small yellow hairs. Proboscis yellowish brown with yellow hairs; palpus yellowish brown with yellow hairs.

Thorax brownish black with pteropleuron brown, and with dense pale gray pollen. Hairs on thorax pale yellow, bristles black. 2 notopleural bristles, 1 dorsocentral bristle, 1 supra-alar bristle, 1 postalar bristle, 1 apical scutellar bristle. Hypopleuron with some long thin hairs. Legs mainly yellowish brown, except mid femur with a narrow indistinct brown ring at apex, hind femur with a narrow distinct brown ring at apex, mid and hind tibiae with a broad but indistinct brown ring at base. Wing (Fig. 11) membrane hyaline, without any bands or marks; veins brown. Halteres yellowish brown with apex brown.

Abdomen brownish black and shining except tergites 1 – 2 black, and with thin pale gray pollen; posterolateral corners of tergites 1 – 7 yellowish brown,

genital fork of sternite 5 and tergites 7 – 8 yellowish brown. Hairs on abdomen pale yellow except those on apical part of tergite 6 brown. Tergites with long hairs. Sternite 5 with a protuberance. Genital fork short and tumid, arms becoming thin and twisty; basal part of fork inset into sternite 4; arms converging with short pale yellow hairs. Sternite 6 of male with a small process projecting between bases of genital fork of sternite 5. Distal abdominal tergites yellowish brown except epandrium with brown marks. Male genitalia (Figs 12, 14): epandrium nearly quadrate in lateral view; surstylus short and broad, with small apical incision.

Female. Body length 10 mm, wing length 7.7 mm. Very similar to male. Ovipositor brownish black and shining, with short pale yellow hairs.

Holotype male, Shaanxi, Huayin, Huashan Mountain, 16 June 1957. **Paratype** 1 female, same data as holotype.

Distribution. Palaearctic Region: China (Shaanxi).

Remarks. This new species may be separated from *C. (Trilophyobata) commutata* (Czerny) from Europe by the surstylus short and broad with a small apical incision. In *commutata*, the surstylus is relatively narrow and apically curved downward (Andersson, 1989).

Etymology. This specific epithet refers to the type

locality Hua Mountain.

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中国秀瘦足蝇属研究 (双翅目, 瘦足蝇科)

李轩昆 刘星月 杨定*

中国农业大学昆虫学系 北京 100193

摘要 首次记述中国瘦足蝇科秀瘦足蝇属 2 种, 其中包括 1 新种。新种模式标本保存在中国农业大学昆虫博物馆。

华山秀瘦足蝇, 新种 *Compsobata (Trilophyobata) huashanica* sp. nov. (图 7~12, 15~16)

该种的鉴别特征为头部具 2 根弱额鬃。胸部褐色, 翅侧

关键词 双翅目, 瘦足蝇科, 秀瘦足蝇属, 新种, 中国。

中图分类号 Q969.44

片黄褐色; 中后足股节基部具 1 宽但不明显的棕色环。雄虫第 6 腹片, 在第 5 腹片生殖叉之间具一些小的突起。

正模雄, 陕西华阴县华山, 1957-06-16。副模 1 雌, 同正模。

词源: 新种种名源自采集地点华山。

* 通讯作者, E-mail: dyangcau@126.com, dyangcau@yahoo.com.cn